

IN THE CLAIMS

9. (Previously Presented) A process for the catalytic partial oxidation of a hydrocarbonaceous feedstock, said process comprising:
- contacting a feed comprising a hydrocarbonaceous feedstock and an oxygen-containing gas with a catalyst or a precursor thereof in the form of a fixed arrangement, wherein the fixed arrangement comprises:
- a first layer which is, during normal operation, located at an upstream end of the fixed arrangement and comprises as a catalytically active metal or precursor thereof rhodium or a rhodium compound, and;
- a second layer adjacent to the first layer with substantially no gap between the first and second layer, which is, during normal operation, located downstream of the first layer, the second layer comprising as a catalytically active metal or precursor thereof iridium, osmium or platinum or a compound thereof.
10. (Previously Presented) The process of Claim 9, in which the hydrocarbonaceous feedstock and the oxygen-containing gas are present in amounts giving an oxygen-carbon ratio of from 0.3 to 0.8.
19. (Previously Presented) The process of Claim 9, in which the hydrocarbonaceous feedstock and the oxygen-containing gas are present in amounts giving an oxygen-carbon ratio of from 0.45 to 0.75.
20. (Original) The process of Claim 9, in which the contacting is carried out at a pressure in a range of from 1 bara to 150 bara, at a temperature in a range of from 750 °C to 1400 °C, and at a gas hourly space velocity in a range of from 20,000 NI/Kg/h to 100,000,000 NI/Kg/h.
21. (Original) The process of Claim 9, in which the catalyst comprises catalytically active metal in each layer in a concentration in the range of from 0.02 % to 10% by weight.
22. (Original) The process of Claim 9, in which the first layer further comprises platinum or a platinum compound.
23. (Original) The process of Claim 9, in which the second layer of the catalyst comprises iridium or an iridium compound.

24. (Original) The process of Claim 23, in which the weight amount of the iridium or iridium compound in the second layer of the catalyst at least equals the weight amount of rhodium in the first layer of the catalyst.
25. (Original) The catalyst or precursor thereof of Claim 9, in which a weight amount of the catalytically active metal in the second layer at least equals two times a weight amount of rhodium in the first layer
26. (Original) The catalyst or precursor thereof of Claim 9, in which a weight amount of the catalytically active metal in the second layer at least equals three times a weight amount of rhodium in the first layer.
27. (Original) The process of Claim 9, in which the catalytically active metal in at least one of the layers of the catalyst is associated with at least one inorganic metal cation or a precursor thereof such that the inorganic metal cation is present in intimate association, supported on or with the catalytically active metal.
28. (Original) The process of Claim 27, in which the inorganic metal cation is selected from the group consisting of the following groups of elements of the Periodic Table of Elements: Group IIA, Group IIIA, Group IIIB, Group IVA, Group IVB and the Lanthanides.
29. (Original) The process of Claim 28, in which the inorganic metal cation is selected from the group consisting of Al, Mg, Zr, Ti, La, Hf, Si and Ba.
30. (Original) The process of Claim 29, in which the inorganic metal cation is Zr.
31. (Original) The process of Claim 9, in which the second layer of the catalyst comprises iridium or an iridium compound, a weight amount of the iridium or iridium compound at least equals three times a weight amount of rhodium in the first layer, at least one of the layers of the catalyst is associated with at least one inorganic metal cation or a precursor thereof such that the inorganic metal cation is present in intimate association, supported on or with the catalytically active metal; and, the contacting is carried out at a pressure in a range of from 1 bara to 150 bara, at a temperature in a range of from 750 °C to 1400 °C, and at a gas hourly space velocity in a range of from 20,000 NI/Kg/h to 100,000,000 NI/Kg/h.
32. (Original) The process of Claim 31, in which the inorganic metal cation is Zr.

33. (Original) The process of Claim 32, wherein the first layer of the catalyst further comprises platinum or a platinum compound.
34. (Original) The process of Claim 33, further comprising a rhodium-to-platinum ratio (w/w) in the first layer of the catalyst in the range of from 5 to 15.